

Butterfly Project for Comprehensive Management Plan 1997

Stillwater National Wildlife Refuge  
Stillwater Wildlife Management Area  
Fallon National Wildlife Refuge

U.S. Fish and Wildlife Service Volunteers:

Lalania Garner-Winter

Kirk Reichard

Heather Weissinger

September 1997

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Protocol: Each site was approximately 100 meters by 50 meters. Sites were visited six times, one half hour each. During the half-hour, observers randomly wandered the sites catching or identifying any butterflies seen.

Species:	Sp #:	Habitats seen in:	Dates:
Monarch <i>Danaus plexippus</i>	1	Cottonwoods-R Willows-R  Cottonwoods-MA Tamarisk-R *Tamarisk-MA	6/16, 7/8, 8/6, 8/20, 8/26 6/31, 7/2, 7/8, 7/15, 8/5, 8/20, 8/23 7/7, 7/16, 7/21, 8/6, 8/23 7/15 *7/21, 7/21, 7/22, 8/6, 8/19
Cabbage butterfly <i>Pieris rapae</i>	2	*Cottonwoods-R Cottonwoods-MA USD-MA Willows-R SD-MA Tamarisk-MA	*6/16, 7/8, 8/6, 8/20, 8/26 7/7, 7/16, 7/21, 8/6 7/10, 7/15, 8/5 7/16, 8/5 7/21, 8/6, 8/15, 8/19, 8/23
Gray Hairstreak <i>Stryman inelinus</i>	3	*(Mammal) SD-MA Cottonwoods-R	*7/31 8/20, 8/26
Western Pygmy Blue <i>Brephidium exilis</i>	4	SD-R USD-R USD-MA *SD-MA Willows-R Battleground(USD)-MA Cottonwoods-MA Cottonwoods-R	7/2, 7/10, 7/15, 8/15, 8/15, 8/18 7/2, 7/10, 7/15, 8/5, 8/15, 8/18 7/7, 7/10, *7/10, 8/5 7/15 7/28 8/6 8/20, 8/26
Peak White <i>Pontia (Pieris) occidentalis</i>	5	*SD-MA Tamarisk-MA <u>Note:</u> before 7/16 we easily could have mistaken a Cabbage for a Peak White Battleground(USD)-MA	*7/16 7/21, 7/21, 7/22, 8/6  7/28
Thistle Crescent <i>Phyciodes mylitta</i>	6(&13)	*Cottonwoods-MA Cottonwoods-R	*7/16, 7/21 7/8 (??), *8/6, 8/26
Purplish Copper <i>Lycaena helloides</i>	7(&8,17,19)	*Cottonwoods-MA Tamarisk-MA Cottonwoods-R	*7/16, *7/21, 8/6, *8/15 8/19 8/20, 8/26,
<i>Hesperopsis libya</i>	9	*SD-MA	*7/10
Checkered Skipper <i>Pyrgus communis</i>	10	*Cottonwoods-MA Reptile Tamarisk-MA Cottonwoods-MA	*7/16 8/1 8/12, 8/15
Painted Lady <i>Vanessa annabella</i>	11	Cottonwoods-MA In tamarisks on Indian Lakes Road almost to the Battlegrounds ?USD-MA Tamarisk-MA	7/31 8/3   ?8/5 8/23

		Tamarisk-R	8/26
Great Basin White <i>Pontia (Pietis) beckeri</i>	12	*Cottonwoods-MA	*8/6
Lorquin's Admiral <i>Linemitis lorquini</i>	14	Cottonwoods-R	8/20, 8/26
Common Sulfur <i>Colias alexandra</i>	15	Cottonwoods-MA Cottonwoods-R	8/12 8/6, 8/20, 8/26
Orange Sulfur <i>Colias eurytheme</i>	16	*Cottonwoods-MA	*8/12
<i>Polites sabuleti</i>	18	Cottonwoods-R	8/22

\* species caught here

## Refuge

### Cottonwoods:

Coordinates: 4375362.920 UTM  
366325.270 UTM

Directions: Turn right off Stillwater Road, 0.1 miles and park. Site lies across irrigation ditch.

Habitat: Riparian Cottonwoods

Dominate vegetation: Cottonwoods

Ground cover: 100%

Surrounding habitat: Agricultural

Proximity to water: Adjacent to canal

Presence of grazing: None, mowed recently

Additional observations: Lots of flowering vegetation, found milkweed. Adult and tadpole Bullfrogs seen.

June 16, 1997, 12 Noon—Cabbage butterflies and Monarchs caught Cabbage Whites and a Monarch.

July 8, 1997, 1:30 PM—Monarchs, Cabbage Whites, Western Tiger Swallowtail??, another orange and black (~4cm).

August 6, 1997, 11:05 AM—Monarchs, Common Sulfur, Cabbage White, caught species 13.

August 20, 1997, 10:50 AM—Monarch, Cabbage White, Common Sulfur, Lorquin's Admiral, species 17, Western Pygmy Blue, Grey Hairstreak.

August 26, 1997, 11:00 AM—Monarchs, Lorquin's Admiral, Common Sulfur, Grey Hairstreak, Cabbage White, Painted Lady, Western Pygmy Blue, species 13.

## Management Area

### Cottonwoods:

Coordinates: 4391108.925 UTM  
358398.988 UTM

Directions: Start on Indian Lakes Rd. 4.75 miles north past Indian Lakes turnoff to Refuge, left through fence over cattleguard, .45 miles to park, site is south along the east side of the Carson River

Habitat: Riparian w/o Tamarisk

Dominate vegetation: Cottonwoods

Ground cover: 100%

Surrounding habitat: Riparian w/ tamarisk, greasewood, and marsh

Proximity to water: Immediate, Carson River and Timber Lake

Presence of grazing: Yes

Additional observations: Tamarisk is present but not dominating the area. No lizards were seen but we saw bullfrogs

July 7, 1997, 1:00 PM—Monarchs and Cabbage butterflies.

July 16, 1997, 10:30 AM—Cabbage Whites, Monarchs, species 9?, unidentified medium orange, caught a Thistle Crescent (sp 6) and species 7.

July 21, 1997, 10:15 AM—Monarchs, Cabbage Whites, Thistle Crescent (sp 6), caught Purplish Copper (sp 8).

August 8, 1997, 8:45 AM—Pygmy Blue (associated w/ rabbit brush), Monarchs, Species 7, Species 8, caught Species 12.

August 12, 1997, 12:30 PM—Monarchs, Cabbage whites, Common Sulfur, Species 10, caught Orange Sulfur.

August 15, 1997, 11:15 AM—Cabbage Whites, Checkered Skipper, caught species 17.

### Refuge (con't)

Willows:

Coordinates: 4376740.723 UTM

371027.158 UTM

Directions: Past shop, take second left after canal. 0.8 miles after gate. Site follows canal.

Habitat: Riparian Willows

Dominant vegetation: Willows

Ground cover: 100%

Surrounding habitat: Greasewood

Proximity to water: Canal directly on East side.

Presence of grazing: None

Additional observations: Milkweed found in area. Always an abundance of Monarchs seen (~ 10+).

July 2, 1997, 12 Noon – Found only monarchs.

July 8, 1997, 12 Noon – Instead of walking the area, we covered the entire canal from the gate to Foxtail Lake by slowly driving through the entire area where there might be willows. Only Monarchs were seen.

July 15, 1997, 11:30 AM – Cabbages, Monarchs, and Western Pygmy Blue.

August 5, 1997, 10:00 AM – Monarchs, Cabbage Whites, unknown medium to large black butterfly with light yellow trim on the wings.

August 20, 1997, 10:20 AM – Monarchs.

August 23, 1997, 8:30 AM – Monarchs.

### Management Area (con't)

No Willow site for the Management area.

## Refuge (con't)

Tamarisk:

Coordinates: 4385244.001 UTM  
372474.076 UTM

Directions: Drive to Navy Cabin and Hunter Road intersection. Follow Navy Cabin to first left turn. Dike is site.

Habitat: Riparian Tamarisk

Dominate vegetation: Tamarisk

Ground cover: 100%

Surrounding habitat: Tamarisk/Riparian

Proximity to water: Canal on west side of dike and drying lake on east side.

Presence of grazing: None

Additional observations: Deerflies

July 8, 1997, 9 AM – No butterflies found.  
Very buggy area.

July 15, 1997, 10:45 AM – Monarch seen.

July 22, 1997, 11 AM – No butterflies seen.

August 6, 1997, 10:40 AM – No butterflies seen.

August 20, 1997, 9:45 AM – No butterflies seen.

## Management Area (con't)

Tamarisk:

Coordinates: 4388165.693 UTM  
357661.629 UTM

Directions: North on Indian Lakes Road 3.1 miles past E/W Indian Lakes intersection. Left at Y and follow road 0.75 mile to ox bow.

Habitat: Riparian Tamarisk

Dominate vegetation: Tamarisk

Ground cover: 100%

Surrounding habitat: Greasewood

Proximity to water: Immediate

Presence of grazing: Yes

Additional observations: Milkweed observed

July 21, 1997, 9:30 AM – Monarchs,  
Cabbage Whites, Peak Whites.

July 21, 1997, 12:05 AM – Monarch.

July 22, 1997, 10:00 AM – Monarch, Peak White, Monarch caterpillars found on narrow leaf milkweed.

August 6, 1997, 9:30 AM – Monarch, Peak White, Cabbage Whites, Monarch caterpillars still feeding on narrow leaf milkweed.

August 19, 1997, 10:30 AM – Monarch, Cabbage White, Purplish Copper?

August 23, 1997, 12:30 PM – Monarch, Painted Lady, Cabbage White, found Monarch pupating on narrow leaf milkweed.

## Refuge (con't)

### Stabilized Dunes:

Coordinates: 4392055.276 UTM  
370119.175 UTM

Directions: North Road 4.6 miles past Indian  
Lakes intersection, site is off to the left

Habitat: Stabilized Dune

Dominate vegetation: Tumbleweed

Ground cover: 90%

Surrounding habitat: Upland vegetation

Proximity to water: None

Presence of grazing: None

Additional observations: Lots of tumbleweed.

July 2, 1997, 10:00 AM – Western Pygmy  
Blue.

July 10, 1997, 12 Noon – Western Pygmy  
Blue, caught species # 9.

July 15, 1997, 9:50 AM – Western Pygmy  
Blue, Cabbage Whites.

August 5, 1997, 9:00 AM – Western Pygmy  
Blue, Cabbage White.

August 15, 1997, 8:30 AM – Western Pygmy  
Blue.

August 18, 1997, 10:00 AM – Western  
Pygmy Blue.

## Management Area (con't)

### Stabilized Dunes:

Coordinates: 4393569.495 UTM  
359705.063 UTM

Directions: North on Indian Lakes Road 7.2  
miles past E/W Indian Lakes intersection.  
Turn right, site .15 miles on west side on  
road.

Habitat: Stabilized dunes

Dominate vegetation: Greasewood

Ground cover: 75%

Surrounding habitat: Riparian Tamarisk,  
Greasewood

Proximity to water: Lake to East

Presence of grazing: None

Additional observations: None

July 10, 1997, 10:15 AM – Western Pygmy  
Blue.

July 16, 1997, 9:45 AM – Cabbage Whites  
and caught Peak White.

July 5, 1997, 9:45 AM – Western Pygmy  
Blue, unidentified orange medium sized  
butterfly - lighter than any we have and with  
less black, unidentified dark medium sized  
butterfly darker than the one we have – also had  
white around the edges.

August 5, 1997, 9:45 AM – Western Pygmy  
Blue, unidentified medium orange and black  
butterfly – lighter in color than what we have  
previously collected, unidentified medium dark  
butterfly – white around edges.

August 22, 1997, 10:30 AM – Spent one hour  
at site. No butterflies seen.

## Refuge (con't)

### Unstabilized Dunes:

Coordinates: 4394712.405 UTM  
372760.832 UTM

Directions: North on north road 5.3 miles past Indian Lakes intersection, left onto 4WD road 2.2 miles, park, large dunes to the north are the site

Habitat: Unstabilized Dunes

Dominate vegetation: Greasewood

Ground cover: 0-2%

Surrounding habitat: Greasewood, dunes, and mudflat

Proximity to water: None

Presence of grazing: None

Additional observations: None

July 2, 1997, 10:50 AM – Western Pygmy Blue.

July 7, 1997, 11:20 AM – Western Pygmy Blue.

July 15, 1997, 9:00 AM – Western Pygmy Blue.

August 5, 1997, 8:30 AM – Western Pygmy Blue.

August 15, 1997, 8:30 AM – Western Pygmy Blue.

August 18, 1997, 8:30 AM – Western Pygmy Blue.

## Management Area (con't)

### Unstabilized Dunes:

Coordinates: 4395200.655 UTM  
360742.131 UTM

Directions: North on Indian Lakes Road to Battleground area. Park after sandy stretch on east side of lake. Site East of road.

Habitat: Unstabilized Dunes

Dominate vegetation: Greasewood

Ground cover: 0-1%

Surrounding habitat: Greasewood, stabilized dunes, riparian tamarisk.

Proximity to water: Lake west of site.

Presence of grazing: None

Additional observations: Mating beatles.

July 7, 1997, 2:00 PM – Caught Western Pygmy Blue.

July 10, 1997, 9:30 AM – Cabbage Whites, Western Pygmy Blue.

July 21, 1997, 11:10 AM – No Butterflies.

August 5, 1997, 9:00 AM – Western Pygmy Blue, Painted Lady?

August 22, 1997, 9:30 AM – Spent one hour at site. Caught species 18.